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THE RELATIONSHIP BETWEEN OPEN-END INVESTMENT COMPANIES AND THEIR INVESTMENT ADVISERS WITH SPECIAL EMPHASIS ON MANAGEMENT FEE RATES

BENNIE L. CORLEY

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by

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Lieutenant Commander, United States Navy

Submitted in partial fulfillment of
the requirements for the degree of

MASTER OF SCIENCE
IN
MANAGEMENT

United States Naval Postgraduate School
Monterey, California

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This work is accepted as fulfilling
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from the

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ABSTRACT

There has been a tremendous growth in the open-end investment company industry in recent years. Its total net assets currently approximate $30 billion, and its activities account for nearly six percent of the overall trading on the New York Stock Exchange. The management of the companies that constitute this industry is therefore a subject which should be of considerable interest to the three million people who are shareholders in these companies.

This subject is investigated by concentrating on four primary areas of interest: (1) management and supervision of the investment company portfolio by the investment company adviser, (2) the relationship of investment company size to the management fee rate paid the investment adviser, (3) the relationship of investment company size to the operating expenses of the company (exclusive of management fee) and (4) the relationship of investment company performance to the management fee rate paid the investment adviser. Correlation analyses are performed to determine these relationships, utilizing data excerpted from current prospectuses and annual reports of representative samples of the companies now in existence. These samples are selected through statistical techniques, and conclusions are drawn on the basis of these analyses. The investment company shareholder's recent realization of the inequities in management fee rates, which were discovered by this study, are noted. The changes in the open-end investment company industry which are now being called for by the public are discussed.

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CHAPTER I

INTRODUCTION

The research upon which this document is based was focused upon the management of open-end investment companies. The name "open-end" means that companies so classified are virtually always repurchasing their shares, and in consequence, are generally always issuing new shares.[1] These companies are more commonly known as "mutual funds", and the two terms will be used interchangeably throughout this paper. They differ from the other major category of investment company, the "closed-end", primarily in the area of capitalization. Closed-end companies have a relatively fixed number of shares outstanding, in contrast to the continually varying capital of open-end companies. Shares of open-end companies are acquired as new issues direct from the company, whereas those of the closed-end company are available only from existing holders.

The idea of investment companies is not new. Investment companies were in evidence in the early nineteenth century in Europe, and by 1860 had taken on much of the form in which we currently find them. The United States had no comparable development until the mid-1920's. In 1924, with the creation of U. S. and Foreign Securities Corporation and Massachusetts Investors Trust, the era of the investment company in the United States commenced. U. S. and Foreign Securities was the forerunner of the modern closed-end company, while Massachusetts Investors Trust was the open-end pioneer.[2]

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[1]Hugh Bullock, The Story of Investment Companies (New York: Columbia University Press, 1959), p. 155.

[2]Rudolph L. Weissman, The Investment Company and The Invester (New York: Harper and Brothers, 1951), p. 145.

The closed-end company was initially much more popular than the open-end. During the speculative frenzy of the late 1920's, there was a whirlwind of activity relative to formulation of closed-end companies. By the time of the 1929 market collapse, there were several hundred of these companies with assets of approximately $7 billion. During the same period, only 19 open-end companies had been organized; their assets totaled less than $200 million.[3] The majority of the closed-end companies failed during the market crash. The open-end companies, of course, experienced a drastic decline in asset values, as did all securities, in the aftermath, but none of their holdings became completely worthless.[4]

The 1929 debacle and the lean years following clearly demonstrated the need for regulation in this area. The Securities and Exchange Commission, over a four year period from 1936 to 1940, conducted an exhaustive investigation into all matters relating to investment companies. The result of this investigation was legislation in the form of the Investment Company Act of 1940 (Public Law 768, 76th Congress). Even though this law did not pertain directly to actual management policies, practices and decisions, it was decisive in restoring public confidence in investment companies.

Today, approximately 89 percent of the investment companies are open-end, the remaining 11 percent being closed-end. Of more significance is the fact that the activities of these open-end funds account for nearly 6 percent of the over-all trading on the New York Stock Exchange.[5]

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[3]Arthur Wiesenberger, Investment Companies, Mutual Funds and Other Types (New York: Arthur Wiesenberger and Company, 1964), p. 16.

[4]Ibid., p. 17.

[5]Ibid., p. 20.

The growth of the open-end investment companies can best be illustrated by referring to Table I. In 1940, net asset value for all open-end companies was $447,959,000. By 1963, it had grown to $25,214,436,000, an increase of roughly 5,000 percent.

TABLE I

TOTAL NET ASSETS, 1940-1963[a]
(In 000's of Dollars)

Year	Assets	Year	Assets
1940	$ 447,959	1952	$ 3,931,407
1941	401,611	1953	4,146,061
1942	486,850	1954	6,109,390
1943	653,653	1955	7,837,524
1944	882,191	1956	9,046,431
1945	1,284,185	1957	8,714,143
1946	1,311,108	1958	13,242,388
1947	1,409,165	1959	15,817,962
1948	1,505,762	1960	17,025,684
1949	1,973,547	1961	22,788,812
1950	2,530,563	1962	21,270,735
1951	3,129,629	1963	25,214,436

[a]Net asset figures are for those open-end investment companies which are members of the Investment Company Institute. They include substantially all mutual fund assets.

Source: Arthur Wiesenberger and Company

The general feeling is that the following are the most significant contributory factors in this phenomenal growth:

1. Vigorous merchandising by investment dealers has been prompted by the financial rewards which accrue to the seller. Many brokerage houses and investment banks have mutual funds as adjuncts to their

businesses. The Wharton Report[6] is quite specific on this point:

> In this connection, it may be noted that there is a significant positive correlation between the size of the sales charge and the rate of inflow of new money into the individual funds.[7]

2. Public confidence in the safety of mutual funds, as a result of federal legislation (i.e., the Investment Company Act of 1940), has been dramatically demonstrated.

3. The general public has become more aware of the investment merits of common stock; particularly as a hedge against inflation.

4. Institutional investors have given broad acceptance to stock investment through mutual funds. Many small trustees, unable to establish their own research facilities, have come to rely on mutual funds.

I. ADVANTAGES AND DISADVANTAGES OF MUTUAL FUND OWNERSHIP

In view of the broad general acceptance of mutual funds, it is felt that a discussion of their advantages and disadvantages is pertinent background material to the analyses which will be subsequently undertaken.

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[6]The term "Wharton Report" refers to a study of the mutual fund industry, which was made by the Securities Research Unit of The Wharton School of Finance and Commerce of the University of Pennsylvania. This study began in late 1958 and was not concluded until August 1962. It was prompted by the requirement of the Securities and Exchange Commission for current information on certain aspects and practices of mutual funds. The result was the most comprehensive analysis of the mutual fund industry since the Securities and Exchange Commission's study made prior to adoption of the Investment Company Act of 1940, some 20 years before. It was subsequently presented to the Committee on Interstate and Foreign Commerce of the U. S. House of Representatives by the Securities and Exchange Commission. It was ultimately published as House Report No. 2274, 87th Congress, 2d Session. This document is commonly known as the "Wharton Report," and will be referred to in this paper by this title.

[7]U. S., House of Representatives, A Study of Mutual Funds, 87th Congress, 2d Session, Committee on Interstate and Foreign Commerce, H.R. 2274(1962), p. XIII.

Those covered herein are certainly not exhaustive, but appear to be the ones which are generally accepted as consequential.

Advantages

Diversification. Probably the most important single advantage--at least the one with which almost all mutual fund investors are concerned--is that of diversification. Some degree of risk is present in any use of resources to produce income or as a means of increasing the monetary value of those resources. The reduction of these risks, so far as is reasonably possible, is the essence of investment management.[8] Investment management is the reason for mutual funds. Diversification mitigates risk; stripped of refinements which add little or nothing to the basic principle, diversification is the avoidance of putting too many eggs in one basket. It is the maximization (within constraints peculiar to the situation) of separation of risks that are inherent in different industries, in different geographical areas and in different types of issues.

Large investors are able to diversify by spreading their investment, in appropriate depth, over a large number of issues so that loss in any single issue or group of issues will have a minor effect on the overall investment. Most investors--or at least most who would like to be investors--in the market cannot even be remotely considered in the large investor category. Even those who might qualify cannot match the diversification which is available to the smallest of the mutual funds.

Professional Management. Probably the second most sought after advantage is professional assistance. Most potential investors are

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[8]Weissman, op. cit., p. 74.

unequipped, from the standpoint of time, training and experience, to properly handle the job of selecting securities. Professional money managers fill this void. They have access to information which is not available to the average investor, and, on the whole, are able to make more objective investments. In this connection, we might quote from the late U. S. Supreme Court Justice Louis D. Brandeis:

> The number of securities on the market is very large.....For a small investor to make an intelligent selection from these many corporate securities--indeed, to pass an intelligent judgement upon a single one--is ordinarily impossible. He lacks the ability, the facilities, the training and the time essential to a proper investigation. Unless his purchase is to be little better than a gamble, he needs the advice of an expert, who combining special knowledge with judgement, has the facilities and incentive to make a thorough investigation.[9]

Convenience. Convenience is of particular significance to large individual or institutional investors. There is the desirability of owning shares in one or a few investment companies, as contrasted with a lengthy list of individual securities. Record keeping is infinitely simplified in that the mutual fund handles all the paper-work of securities ownership. The following services, which are provided by mutual funds, enhance the convenience advantage.

1. Automatic reinvestment of dividends.

2. Availability of contractural investment plans. Under this option, the investor is "locked-in" to an investment program once he begins it. This is brought about by the requirement for payment of a disproportionately large part of the sales commission during the initial years of the plan. For those who need such an incentive, this option is often

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[9]Louis D. Brandeis, Other People's Money (New York: Fred A. Stokes Company, 1932), pp. 7-8.

considered a convenience advantage. Plan completion insurance, whereby the investor can be sure that the investment plan will be completed in the event of death, is normally a part of such plans.

3. Plans that provide for systematic withdrawals by the investor. These are most attractive to more elderly investors who have a requirement on a monthly or quarterly basis for supplemental income for living expenses.

Redemption. By federal law, mutual funds must redeem their shares from an investor who so requests within seven days after the tender of such security to the company or its designated redemption agent (except for specified unusual situations).[10] In actual practice, the average time required for redemption is usually three to five days.

The redemption advantage has been the focus of some controversy that might bear examination at this point. It revolves around the question of what effect the feature has upon market price levels. The supporters of mutual funds hold that they mitigate security price fluctuations and stabilize the market. Those who do not favor the funds claim that the unsophisticated mutual fund investor, during a recession, would rush, by the millions, to redeem their shares; thus causing a situation analogous to a "run" on a bank. They maintain therefore that this feature is a constant deterrent to market stability.

The facts in the matter clearly favor the fund supporters. Mutual funds could only contribute to a market decline or collapse in the event that they were forced to sell their portfolio securities. A requirement

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[10] U. S. Congress, Investment Company Act of 1940, Public Law 768, 76th Congress, 3d Session, Title I, Investment Companies, 1940, H. R. 10065, p. 28.

for sale of securities infers a need for capital. The mutual fund has three sources for capital: (1) uninvested cash, (2) sales of new shares, (3) sales of securities.

The first source, uninvested cash, is available to meet redemptions. It would be relatively insignificant, however, in the event of accelerated redemptions, in that funds do not normally maintain liquidity at a level much higher than that required for normal operations.

The second source, from sales of new shares, is by far the most important source. The history of fund operations, almost from their inception in this country, substantiates this without exception. Table II shows that new sales have always exceeded redemptions by a ratio of 1.5:1 or better. This was true even in the 1930's when the securities market was prostrated as a result of the 1929 collapse. There were sharp market declines in 1957, 1960 and 1962 (the Dow-Jones Industrial Average ended more than 10 percent lower than it began in these years). Despite this, sales of mutual fund shares exceeded redemptions by better than a 2 to 1 ratio.

These statistics clearly indicate that mutual funds are not likely to have to resort to portfolio liquidations to meet redemption demands during severe market declines. Quite the contrary, the high ratio of purchases to redemptions during these periods would tend to establish the funds as market stabilizers.

In view of the foregoing evidence, a discussion of the third capital source would seem superfluous. Even if portfolio liquidation should ever become a necessity, it is normally sufficiently diversified to enable selective and orderly disposition of relatively small blocks of various securities and would not involve distress selling of all holdings of an

TABLE II

SALES AND REDEMPTIONS OF OWN SHARES BY MUTUAL INVESTMENT FUNDS 1927-1936, 1941-1963

(in thousands of dollars)

Year	Gross Sales	Redemptions	Net Sales	No. Funds
1927	$ 15,905	$ 1,992	$ 13,913	40
1928	38,210	7,798	30,412	40
1929	86,364	20,621	65,743	40
1930	28,820	15,031	13,789	40
1931	21,548	11,595	9,953	40
1932	26,388	8,347	22,041	40
1933	81,583	11,720	69,863	40
1934	68,947	19,293	49,654	40
1935	85,781	17,485	68,296	40
1936	110,600	28,533	82,067	40
1941	53,312	45,024	8,288	68
1942	73,140	25,440	47,700	68
1943	116,062	51,221	64,841	68
1944	169,288	70,815	98,413	68
1945	292,228	109,978	182,381	73
1946	370,353	143,612	226,741	74
1947	266,924	88,732	178,192	80
1948	273,787	127,161	146,616	87
1949	385,526	107,587	277,939	91
1950	518,811	280,728	238,083	98
1951	674,610	321,550	353,060	103
1952	782,902	196,022	586,880	110
1953	672,902	238,778	433,227	110
1954	862,817	399,702	463,115	115
1955	1,207,458	442,550	764,908	125
1956	1,346,738	432,750	913,988	135
1957	1,390,557	405,716	983,841	143
1958	1,619,768	511,263	1,108,505	151
1959	2,279,982	785,627	1,494,355	155
1960	2,097,246	841,815	1,255,431	161
1961	2,950,860	1,160,357	1,790,503	170
1962	2,699,049	1,122,695	1,576,354	169
1963	2,459,105	1,505,335	953,770	165

Sources: 1927-1936--Securities and Exchange Commission Report to Congress on Investment Trusts and Investment Companies, Part II, p.265, Table 81(1939). 1937-1940--Not Available. 1941-1963--Arthur Wiesenberger & Company. Data pertain to member companies of Investment Company Institute but include substantially all mutual fund assets.

individual security.[11]

Of further interest in connection with mutual fund advantages is a survey which was conducted in 1958 by the National Association of Investment Companies. They sent questionnaires to several thousand regular account holders.[12] These questionnaires listed the four primary fund ownership advantages, which have just been under discussion, and requested the account holder to indicate which of the four he personally considered to be the greatest advantage to him. Each sample was mutually exclusive--that is, if he chose one of the four, he automatically excluded the other three. Certain other data were also included in the questionnaire to enable classification of the respondent.

Responses were received from about 1500, representing approximately 20 percent of those queried. Table III summarizes the results of the survey. The data therein are self explanatory.

Disadvantages

Sales Charge. Over four-fifths of the mutual funds currently sell their shares at net asset value plus a sales commission or loading charge. The size of the commission varies between companies and by size of purchase, but it is typically seven to nine percent of the total selling price of the shares for purchases up to $25,000 in size, with a gradual decline thereafter. They are characteristically sold through a principal underwriter, who in turn sells the shares to a selling group of retail dealers. The sales charge is split between the principal underwriter and

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[11]Dorsey Richardson, The Investment Companies in 1955: Their Relationship to the Nation's Securities Markets (New York: National Association of Investment Companies, 1955), p. 21.

[12]Regular account holders are those who have made a lump sum investment in a mutual fund but who have made no commitment for additional investment.

TABLE III

INDICATED PRIMARY ADVANTAGE OF INVESTMENT COMPANY OWNERSHIP,
REGULAR ACCOUNT HOLDERS[a]

	Management	Diversification	Market-ability	Convenience (Lack of Detail Work)
All Respondents Answering	24.4%	54.9%	7.9%	12.8%
Sex: Male	26.5	54.6	7.8	11.1
Female	20.5	54.9	8.9	15.7
Marital Status: Married	26.2	55.8	7.3	10.7
Single	20.4	55.6	8.9	15.1
Widow or Widower	22.7	50.5	9.8	17.0
Age: Under 30	24.0	56.0	6.0	14.0
30-39	23.2	57.3	6.1	13.4
40-49	22.4	57.7	6.0	13.9
50-59	25.2	56.4	5.8	12.6
Over 60	25.8	51.5	10.9	11.8
Occupation:				
Professional	24.0	58.5	4.1	13.4
Executive-Administrative	29.6	53.2	7.5	9.7
Clerical	19.5	57.5	6.2	16.8
Sales	30.1	54.4	5.8	9.7
Skilled & Semi-skilled	20.6	50.6	13.7	15.1
Civil Service & Military	22.2	55.5	6.7	15.6
Housewives	24.7	52.2	9.7	13.4
Retired	22.0	52.6	11.5	13.9
Income: Under $3,500	19.0	49.7	13.6	17.7
$3,500 to $5,000	25.1	52.1	8.1	14.7
$5,000 to $7,500	20.6	60.0	8.4	11.0
$7,500 to $10,000	24.5	60.6	5.4	9.5
$10,000 to $15,000	28.3	55.1	4.9	11.7
$15,000 to $20,000	26.1	52.4	6.0	15.5
$20,000 and over	32.4	49.3	6.5	11.8

[a] Regular account holders are those who have no formal plans to make new investments in mutual fund shares but have made a "lump sum" investment to which they may or may not subsequently add.

Source: National Association of Investment Companies

retailer, with the latter usually getting between two-thirds and seven-eighths of the total.[13] Table IV illustrates the procedure that is utilized in the calculation of the offering price of mutual fund stocks where a loading charge is assessed.

This fairly high initial cost is considered by some to be a disadvantage. Interestingly enough, however, the Wharton Report indicates that the sales charge is in fact a bargain to the average investor. It states that the major function served by mutual funds is the provision of diversification and that the degree of diversification provided by the funds could be procured by the average investor only at an acquisition cost in excess of this charge.[14]

TABLE IV

COMPUTATION OF BID PRICE, SALES CHARGE AND OFFERING PRICE OF OPEN-END INVESTMENT COMPANY STOCK

Account	Amount
Investments at market	$215,252,851
Cash and other assets	10,508,646
Total	225,761,497
Liabilities	4,503,784
Net assets at market--for 18,928,770.7 shares outstanding	221,257,713
Net asset value and redemption price (bid price) per share: $\frac{\$221,257,713}{18,928,770.7}$ =	$11.69
Offering price per share $\frac{100}{92}$ of $11.69	$12.71
Effective sales charge per share (8.0% of actual offering price)	$ 1.02

Source: Prospectus, Fidelity Capital Fund, 23 March 1965.

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[13] Edward S. Herman, "Mutual Fund Management Fee Rates," The Journal of Finance, XVIII (May, 1963), 362, 363.

[14] A Study of Mutual Funds, op. cit., p. 18.

Management Fees and Other Operating Expenses. Management fees and other operating expenses are two of the main topics of this paper and will be treated thoroughly in later chapters. It should be noted here, however, that the investor is currently paying in the neighborhood of $120 million per annum in fees for the management of approximately $30 billion in net assets, and the expense of actually operating the funds acts to cause a further reduction in the return on his investment.

Overdiversification. Much has already been said regarding diversification as the primary advantage of the funds. While this is undoubtedly true, it should also be noted that while diversification limits risk, it also limits opportunity. Therefore, excessive diversification is considered by some to be a disadvantage, due to its restrictive effect on profit opportunity.

Tax on Capital Gains Distribution. The owner of shares of stock in companies listed on the stock exchange has the option of selling or keeping shares issued to him as a capital gains distribution. He pays no tax when he retains them. By contrast, the mutual fund shareholder does not have this prerogative. He must pay the capital gains tax regardless of whether he takes the distribution in additional shares or in cash.

II. PURPOSE AND SCOPE OF THE STUDY

In attempting to formulate a plan for research into the management of mutual funds, there was a temptation to attempt a study to develop information related to all matters impinging upon this subject. Initial investigation revealed that such a task could not be meaningfully accomplished in the time allotted and with the research facilities available. Accordingly, it was decided to concentrate on four primary areas of

inquiry in the hope of developing information which would lead to valid conclusions that might be useful to those interested in the subject. The four areas selected are:

1. Management and supervision of the fund portfolio.
2. The relationship of mutual fund size to management compensation.
3. The relationship of mutual fund size to operating expense.
4. The relationship of performance to management compensation.

The first of these areas is covered in Chapter II. Special emphasis is given to the security selection process which is usually delegated by a mutual fund to an investment advisory firm. The subject of management fees, which has already been briefly mentioned, is thoroughly examined. Advisory contracts are discussed.

Chapter III is concerned with the second and third areas. Management compensation and other operating expenses are defined, for purposes of this study, to avoid confusion regarding comparisons that are made. A procedure for securing the required mutual fund sample was designed, using modern statistical techniques. Data relating to fund size, management compensation and operating expense were then drawn from the current prospectuses and/or annual reports of the companies selected in the sample. They were correlated in an effort to determine the effect (if any) of fund size on operating expense and management compensation.

Chapter IV is concerned with the fourth area. The problems related to measuring fund performance were examined and a procedure for doing so was developed. An additional sample of ten common stock funds and ten balanced funds was taken. These companies were correlated to determine the relationship (if any) between management compensation and fund performance.

Chapter V summarizes the research effort and the conclusions.

CHAPTER II

MUTUAL FUND MANAGEMENT

A mutual fund is usually organized as a corporation, with a board of directors and with a group of officers responsible for its routine activities. The vast majority of the funds enter into contracts with investment advisers, who agree to provide investment advice and perform various other administrative services for a prescribed fee.[1] Only a small percentage are managed exclusively by their boards of directors or trustees and their own full-time officers. These investment advisers are commonly known as mutual fund management companies. The terms management company and investment adviser are, for the purposes of this study, synonymous and will be used interchangeably throughout this paper. Additionally, since this paper is concerned only with open-end investment companies, the term investment company, where appearing, should be taken to mean an open-end investment company. This chapter will be concerned primarily with:

1. The legal relationship between the investment company and its investment adviser. This is a function of federal legislation (Investment Company Act of 1940) and the advisory and service contract between the investment company and the adviser.

2. The actual management procedures employed in controlling the fund portfolio.

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[1]Edward S. Herman, "Mutual Fund Management Fee Rates," The Journal of Finance, XVIII (May, 1963), 362.

I. THE LEGAL RELATIONSHIP BETWEEN THE MANAGEMENT COMPANY AND THE INVESTMENT COMPANY[2]

The Investment Company Act of 1940 establishes certain standards of corporate and inter-corporate structure and disclosure, prescribes and regulates relationships and transactions between investment companies and affiliated persons, of which the investment adviser is one, and, to a limited extent, regulates other operations. Its enforcement is delegated to the Securities and Exchange Commission.

Under section 10(a) of the Act, no investment company may have a board of directors more than 60 percent of whom are officers or employees of the company, or investment advisers, or persons affiliated with the investment adviser. Section 15 of the Act provides that investment advisory contracts must originally be approved by a vote of the investment company's stockholders, and shall continue in effect for a period of more than two years after execution only so long as approved at least annually either (1) by a majority of directors who are not parties to the investment contract or affiliated persons of any such party or (2) by a vote of the stockholders. The contract must provide, in substance, that it may be terminated by the investment company at any time on not more than sixty days written notice, and that it terminates automatically in the event of its assignment by the investment adviser. In the case of a corporate adviser, assignment includes, by definition, the transfer of a controlling block of the outstanding voting securities by one or more stockholders of an investment advisory company.

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[2]Data in this section regarding the statutory provisions of the Investment Company Act of 1940 were taken from the Act itself.

The termination provision is an important one in that, before enactment of this statute, investment advisory contracts would often run for long periods and would be sold to a new and sometimes less desirable group of men without shareholders having anything to say about the investment company coming under new supervision.[3]

Section 15 also requires that contracts between management companies and mutual funds fulfill certain specific conditions regarding the compensation to be paid to the adviser by the fund. This requirement has two facets: (1) the fee to be charged by the management company for its advisory service and the method which will be used to compute it, and (2) those other operating expenses of the fund, if any, that are to be assumed by the management company as a part of the service provided under the management fee.

The Wharton Report provides some highly illuminating data regarding these two points.[4] The data concerning the first point were developed on the basis of information submitted by 174 mutual funds and their investment advisers in response to a questionnaire sent them by the Securities and Exchange Commission in December, 1960. Table V contains the information developed. It will be noted that the vast majority (94.2 percent) of the funds queried have contracts that provide for computation of management fees solely on the basis of fund asset size. In most of these cases (79.3 percent), they are an invariant percentage of fund

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[3]Hugh Bullock, The Story of Investment Companies (New York: Columbia University Press, 1959), p. 86.

[4]U. S., House of Representatives, A Study of Mutual Funds, 87th Congress, 2d Session, Committee on Interstate and Foreign Commerce, H.R. 2274 (1962), p. 480.

TABLE V

MANAGEMENT FEE-RATE TYPES FOR ADVISORY SERVICES TO OPEN-END INVESTMENT COMPANIES, 1960

Fee Types	Number of Companies	Percent
Flat percentage of fund assets	138	79.3
Scaled percentage of fund assets	26	14.9
Fixed percentage of gross income	5	2.9
Other	5	2.9
Totals	174	100.0

Source: Securities and Exchange Commission (Wharton Report)

assets; but in a substantial (14.9 percent) number of instances they are calculated according to a scale which declines as assets grow. The latter category also includes those companies which calculate on the basis of declining percentage of assets and investment income. There were a few instances (2.9 percent) in which the fee was calculated as a fixed percentage (usually 6 percent) of gross investment income. The remainder of those queried (2.9 percent) utilized somewhat exotic or at least uncommon methods and were lumped into an "other" classification.

In recent years, there has been increasing criticism of the management companies regarding their methods for computing management fees, because these fees have remained static in spite of the enormous increase in total assets of the funds managed. This criticism has been based primarily upon the contention that the costs of portfolio management do not increase in direct proportion to the assets of the portfolio, since economies of scale must eventually influence operations.[5] For this reason,

[5]"Personal Investing," Fortune, LXX (December, 1964), 83.

the 14.9 percent figure developed for mutual funds which pay management fees on the basis of a declining scale is of particular interest. It establishes that there has been a noticeable increase in recent years in the number of companies that are now utilizing this method.[6] Chapter III will deal with this aspect of management fees--the relationship of the fee to the net asset size of the fund.

Regarding the second point, services, other than advisory, that are provided by the management company for the management fee, the Wharton Report has the following comments:

> There is considerable variation in industry practice as regards the allocation of administrative duties and expenses between the investment adviser and the investment company. In some cases, the adviser serves exclusively in an advisory capacity, often with another organization serving as manager; in other cases advisers perform all, or absorb the entire cost of, administrative or "housekeeping" activities connected with the operations of an open-end investment company; and most advisers fall somewhere between these extremes.[7]

The report also compiled meaningful statistical data on the basis of information submitted by 232 investment managers in response to questionnaires. Table VI summarizes this information.

It may be seen from Table VI that for between 60 and 80 percent of the 232 open-end companies, the advisers paid entirely for housing the investment company, clerical and bookkeeping expenses, accounting services, officers' salaries, and the determination of offering and redemption prices. For between 30 and 50 percent of the companies, directors' fees, the cost of stationery, supplies and printing, and registration and filing expenses were absorbed by the adviser. For between 8 and 16

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[6] Herman, op. cit., 367.

[7] A Study of Mutual Funds, op. cit., p. 476.

TABLE VI

ADMINISTRATIVE SERVICES PERFORMED OR PAID FOR
BY INVESTMENT ADVISERS, 1960

Service	Number of open-end companies					
	Service fully provided		Service partially provided		Service provided in whole or in part	
	Number	Percent	Number	Percent	Number	Percent
Occupancy and office rental	179	77.2	5	2.2	184	79.3
Clerical and bookkeeping	170	73.3	14	6.0	184	79.3
Officers' salaries	158	68.1	28	12.1	186	80.2
Determination of offering and redemption price	151	65.1	0	.0	151	65.1
Accounting	140	60.3	6	2.6	146	62.9
Directors' fees	107	46.1	37	15.9	144	62.1
Stationery, supplies and printing	96	41.4	50	21.6	146	62.9
Registration and filing	72	31.0	16	6.9	88	37.9
Reports to stockholders	37	15.9	21	9.1	58	25.0
Legal fees	34	14.7	27	11.6	61	26.3
Cost of annual meeting	28	12.1	1	.4	29	12.5
Auditing	28	12.1	14	6.0	42	18.1
Transfer agent fees	26	11.2	0	.0	26	11.2
Custodian fees	19	8.2	0	.0	19	8.2
Cost of disbursing dividends	19	8.2	1	.4	20	8.6

Source: Securities and Exchange Commission (Wharton Report)

percent of the companies, the investment adviser supplied or paid for all expenses connected with reporting to stockholders, legal actions, annual meetings, auditing, transfer agent, custodial and dividend disbursing activities. In many cases, as may be seen in columns 3 and 4 of Table VI, the adviser provided only part of the cost of a service. Columns 5 and 6 give the number and percentage of cases in which the service in question was provided by the adviser in whole or in part.

We can see from column 2 that a majority of companies were provided fully with only the first five services. In column 6, it may be seen that a majority of open-end companies are provided in whole or in part with seven services. In addition to occupancy, clerical and accounting services, officers' salaries, and the determination of redemption prices, directors' fees and stationery, supplies and printing round out the seven services. Directors' fees are typically a minor expense, and stationery, supplies and printing are usually reported exclusive of the expenses involved in transmitting various kinds of reports to stockholders. The latter appears to be a substantial expense, and as may be seen in Table VI, it is usually left for payment by the investment company.

II. MANAGING THE FUND PORTFOLIO

Calvin Bullock Ltd. has been chosen as an example of a typical investment advisory company for the purpose of illustrating the management process. Its procedures will be contrasted with those of the Broad Street Group of funds, to provide an idea of some of the differences in approach to management that are found in the investment company field today.

Calvin Bullock, Ltd. manages four mutual funds, which had combined net assets of $578.1 million in 1964. Table VII provides a breakdown of net assets and management fees for each fund which Calvin Bullock supervised in 1964.

There are several levels in the decision-making process. At the top level is the Board of Directors composed of distinguished representatives of the fields of business, law and finance. In total there are

eight directors, and it is their job to establish the broad policies of the fund. They function in an advisory and supervisory capacity and not in an administrative capacity. They do not ordinarily recommend specific security transactions, for such is regarded to be within the sphere of the investment advisory firm.

TABLE VII

NET ASSETS AND MANAGEMENT COSTS FOR THE BULLOCK GROUP OF MUTUAL FUNDS, FISCAL 1964

Name of Fund	Net Assets (in millions)	Management Fee[a] (in thousands)	Management Fee as a % of Net Assets
Bullock Fund	$103.7	$ 242.9	0.234%
Dividend Shares	374.2	1110.3	0.296%
Nationwide Securities	66.0	151.2	0.230%
Canadian Fund	34.2	126.2	0.370%
Total for Four Funds	$578.1	$1630.6	0.299%

[a]Management fee does not include the salaries of directors not affiliated with the investment management company, Calvin Bullock, Ltd.

Source: Annual Reports

No compensation is paid by the company to any of its directors or officers who are also directors, officers or employees of Calvin Bullock Ltd., which is obligated to pay such compensation. Other directors receive annually an aggregate of approximately $12,000 as remuneration from the company for their services.[8]

One of the most important of those services rendered by the directors is to act as intermediaries between the investment counsel firm,

[8]Prospectus, Bullock Fund, March 29, 1965, p. 2.

Calvin Bullock, Ltd. and corporations having investment potential. The directors are usually well known and can arrange meetings between the security analysts of the counsel organization and high-level corporation executives. Such meetings serve a very useful purpose, which is to give members of the research staff more information on which to base their investment decisions.

Below the Board of Directors there exists an advisory committee composed of from three to five members who are usually board members, and it is their function to define and refine the broader policy conclusions of the board with respect to the degree of defensive or aggressive measures that are recommended to the administrators of the portfolio.[9] The advisory committee's function is advisory and not administrative.

The management of the portfolio is the job of the management organization, and the final decision with respect to the actual selection of securities for purchase and sale is left to the head of the investment management department and his deputies, thus influencing more decisive action and more effective administration.[10]

The portfolio administrator has the final responsibility for placing individual orders for purchases and sales based on the board and advisory committee's policies and on the studies and recommendations of the research department. He is assisted in discharging this responsibility by the economist and the senior member of the research staff, who act as his deputies.

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[9]Harold Aul, "Investment Company Portfolio Management," The Commercial and Financial Chronicle, CLXXVI (July 31, 1962), 9.

[10]Ibid.

Under the portfolio administrator there are several research departments. Each department is headed by a senior analyst who is given the necessary statistical and clerical assistance.

In addition to its own studies, the organization makes use of a wide range of outside facilities. These facilities include:[11]

1. Company reports and field trips.
2. Data from all the principal statistical agencies.
3. Pertinent government reports.
4. Specialized studies of economic organizations.
5. Reports of the research departments of certain of the leading brokerage and investment banking organizations.

In contrast to the management procedure of the Bullock Group of funds (which is the most prevalent), a unique arrangement for securing investment research and administrative services on a non-profit, low cost basis has been devised by four investment companies. The four companies are National Investors Corporation, Broad Street Investing Corporation, Whitehall Fund and Tri-Continental Corporation. They operate a research and administrative organization for their mutual benefit. This organization, Union Service Corporation, is one of the largest of its kind with about 110 employees and expenses budgeted for the current year at over $1.2 million. It is owned by these four companies. It has no outside clients, institutional or individual.[12]

The aggregate compensation received by the officers of the four investment companies and the cost of operating Union Service are shared by

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[11] Ibid., 34.

[12] Annual Report, National Investor's Corporation, January 19, 1965, pp. 9, 12.

them in the ratio of the current value of the assets of each company to the value of the combined assets of the four. No management or investment advisory fees are paid.[13]

The advantages of such an arrangement are readily apparent from Table VIII. Investment management and administrative expenses and officers' compensation, as a percentage of net assets, is extremely low in relation to the basic annual fee rates typically paid by mutual funds for management and investment advisory services. This can be seen by a comparison of Table VIII with Table VII. The funds utilizing Union Service Corporation spent, on the average, during fiscal year 1964, only 37 percent as much on management expense as did those utilizing Calvin Bullock, Ltd; and it should be noted that Bullock is by no means the most expensive management company in the industry.

The funds of the Broad Street Group, through their use of Union Service Corporation, realize substantially greater facilities than they could independently. The cost is also much lower than if they maintained their own organization. The reason for this is, of course, that Union Service Corporation provides its services to the funds at cost, thus eliminating the profit margin required by the investment management company. Funds such as those of the Bullock Group, which employ an investment management company, must pay not only the costs of managing, but a profit to the manager as well.

The management procedure for the Broad Street Group[14] is somewhat

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[13]Annual Report, Broad Street Investing Corporation, January 19, 1965, p. 10.

[14]The discussion in the remainder of this chapter relating to the Broad Street Group and the Union Service Corporation is based upon material presented in a pamphlet published by the Broad Street Sales Corporation entitled Investment Research and Administration For the Broad Street Group of Mutual Funds.

different from that of the Bullock Group. Like the Bullock Group, each fund of the Broad Street Group is controlled by a Board of Directors which is elected by the shareholders. The directors are responsible for the policies they establish and for the overall results of the fund.

TABLE VIII

NET ASSETS AND MANAGEMENT COSTS FOR THE BROAD STREET GROUP OF MUTUAL FUNDS, FISCAL 1964[a]

Name of Fund	Net Assets (in millions)	Management Costs[b] (in thousands)	Management Cost as a % of Net Assets
Broad Street Investing Corp.	$341.4	$349.7	0.10%
National Investors Corp.	429.5	443.8	0.10
Whitehall Fund	17.2	18.3	0.10
Total for Three Funds	$788.1	$811.8	0.10%

[a]The research facilities of Union Service Corporation are also shared by Tri-Continental Corporation. Tri-Continental is a closed-end investment company and by virtue of this fact, computations regarding it have not been included in this table.

[b]Includes investment and administrative expenses, plus officers' compensation.

Source: Annual Reports

A difference between the two groups appears, however, at the next level. Where the companies of the Bullock Group have advisory committees, those of the Broad Street Group have executive committees. The executive committee is much more powerful, having about the same function as the advisory committee and portfolio administrator combined. It was seen in the discussion of the Bullock Group that the advisory committee functioned

only to refine and define the broader policies which were formulated by the board of directors, and the decisions regarding adjustments in the portfolio were the responsibility of the portfolio administrator. In the Broad Street Group the executive committee acts in both these capacities. The Broad Street Group therefore evidences a predilection for group judgement in making decisions regarding which securities are to be bought and sold, when, and in what amounts. Whereas, the Bullock Group does not believe in committee management of portfolios, but looks to the head of the investment management department and his deputies to implement the declared policies and objectives, basing his selections on the studies of the research department.[15]

Organizationally, the Union Service Corporation functions directly below the executive committees of the member investment companies. As mentioned earlier, it consists of approximately 110 employees. It functions primarily through a research staff, which is coordinated by investment committees. These committees perform a number of functions; they: (1) plan staff work, (2) review investment findings, (3) recommend investments, (4) direct the research staff, (5) review research staff findings and (6) bring forward investment recommendations for decision.

Departmentalization is not as extensive in Union Service as it is in Bullock. The three investment research departments of Union Service and their functions are:

1. Economics Department. Responsible for surveys and forecasts of economic conditions.

2. Investment Research Department. Develops information through

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[15]Aul, op. cit., 9.

the study of investment prospects in many industries to provide a basis for selection of securities best suited for meeting fund objectives.

3. Market Department. Continuously studies conditions in the securities market. Supervises the purchase and sale of securities which have been chosen by the executive committees of the member investment companies.

A basic understanding of the legal relationship between the investment adviser and the investment company and also, in general, of the methods employed in the industry to provide investment management and administrative services to the individual funds will be of value to the reader in grasping the material to be presented in the succeeding chapters. It is hoped that this chapter has accomplished that purpose.

CHAPTER III

THE RELATIONSHIP OF MUTUAL FUND SIZE TO MANAGEMENT COMPENSATION AND OTHER OPERATING EXPENSES

Other than taxes on capital gains and dividends, the cost of owning mutual fund shares, subsequent to acquisition, is represented by the operating expenses of the fund. These expenses are passed on to the shareholder through a reduction in the net assets of the company (and consequently in the bid price for each share of stock in that company) by an amount equal to these expenses. For purposes of this study, these expenses have been divided into two categories: (1) management compensation and (2) other operating expenses.

It was noted in Chapter II that there is considerable variation throughout the industry regarding the services that are provided by an investment management company in return for the fee which it receives from a fund which it manages. This situation dilutes the value of any comparison of mutual funds on the basis of management fees. Accordingly, it was decided that the comparison, in part, would be made on the basis of an arbitrary grouping of operating expenses which were common to all the funds considered. This grouping was referred to as management compensation. All operating expenses then remaining, after separation of those constituting management compensation, were then referred to, collectively, as other operating expenses. The allocation of operating expenses between these two categories was as follows:

1. Management Compensation
    a. All fees for investment advice and assistance
    b. Officers' salaries
    c. Directors' fees

d. Occupancy and office rental

2. Other Operating Expenses. All remaining operating expenses such as:

a. Clerical and bookkeeping

b. Determination of offering and redemption

c. Accounting

d. Stationery, supplies and printing

e. Reports to stockholders

f. Legal fees

g. Transfer agent fees

h. Custodian fees

i. Cost of disbursing dividends

j. Taxes

Since operating expense constitutes the principal recurring cost to the mutual fund shareholder, an attempt to ascertain the relationship between it and the size of mutual funds, as measured by net assets, was considered pertinent. Correlation between fund size and management compensation should provide meaningful information regarding the costs of management services. One would expect that as substantial increases in fund assets are realized, the economies of scale would enable the management company to provide its services to the fund at a smaller overall fee rate. Whether this is in fact true is considered, along with other factors, to be information of significant value to the prospective mutual fund investor in the selection of a company in which to invest his money.

Correlation between fund size and other operating expense should also provide valuable information regarding the efficiency of the fund in conducting those operations which are not controlled and paid for by

the management company. Again, one would expect those companies with large net asset values, through the advantages of economies of scale, to be able to operate at a lower expense ratio (i.e., other operating expense:net assets).

This chapter will provide an answer to these two questions through statistical analysis. An appropriate sampling procedure was designed, and a sample of thirty mutual funds was selected. The aforementioned variables (net assets, management compensation and other operating expenses) were correlated by means of scatter diagrams. The results and conclusions are as noted herein.

I. SIZE OF MANAGEMENT COMPANIES

The Investment Company Act of 1940 requires that registered investment companies must have a net worth of at least $100,000. This requirement is based on the premise that a minimum size of $100,000 tends to discourage irresponsible promoters from establishing mutual funds. It also insures that these funds have the ability to at least afford adequate research facilities. Small investment companies often are not able to support a suitable research effort because they find it difficult to afford the price required by a full-time advisory concern. There is an alternative to hiring an investment manager for the mutual fund, and that is to conduct their own research. However, the adequacy of such research is also dependent upon the fund being able to pay the price necessary to create suitable facilities of their own.

It should be emphasized that the $100,000 minimum size by no means represents optimum mutual fund size, but only acts as a lower protective limit for the investor. Russel Doane and Edward J. Hills point this out

in their book, Investment Trusts and Funds:

> Ordinarily we do not recommend investment companies having total assets of less than about $10,000,000. The annual administrative and accounting expenses of smaller organizations tend to be a relatively large proportion of net income. Also, in order to obtain the full-time services of competent investment advisers, a management fee of at least $50,000 (one-half of one percent of $10,000,000) would be needed. A smaller management fee may be adequate if the fund is managed as an adjunct to a large investment advisory business.[1]

There is no specific requirement governing maximum size, although the Investment Company Act of 1940, Section 14(b) states:

> The commission is authorized, at such times as it deems that any substantial further increase in size of investment companies creates any problem involving the protection of investors or the public interest, to make a study and investigation of the effects of size on the investment policy of investment companies and on security markets, on concentration of control of wealth and industry, and on companies in which investment companies are interested, and from time to time to report the results of its studies and investigations and its recommendations to the Congress.[2]

II. DESIGNING THE SAMPLE

Wiesenberger currently lists 236 mutual funds which he classifies as common stock, balanced and specialty.[3] It was felt that the results from an analysis of all of these companies would not have been commensurate with the effort required to do it. Accordingly, the technique of stratified proportional random sampling was decided upon.

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[1]C. Russel Doane and Edward J. Hills, Investment Trusts and Funds (Great Barrington, Massachusetts: American Institute for Economic Research, 1958), p. 52.

[2]U. S. Congress, Investment Company Act of 1940, Public Law 768, 76th Congress, 3d Session, Title I, Investment Companies, 1940, H.R. 10065, p. 19.

[3]Arthur Wiesenberger, Investment Companies, Mutual Funds and Other Types (New York: Arthur Wiesenberger and Company, 1964), pp. 160-165.

Stratified proportional random sampling is of value when a sample is required from a finite heterogeneous universe which has groupings within it which are themselves homogeneous. These groupings are referred to as strata. The precision of an estimate is improved when it is arrived at by taking individual simple random samples from each stratum rather than by employing a single simple random sample of the same total size from the entire universe.[4] Additionally, where proper representation of the variables considered most important is necessary, the precision is further improved by selecting samples from each stratum which bear the same relationship in size to the total sample desired as the strata bear to the universe. Another factor of the utmost importance is sample size. Sample size too is a function of the degree of precision required. It also depends upon the variability of the data being sampled, the sampling method used and the type of estimating procedure used.[5]

In this instance, the universe consisted of the aforementioned 236 mutual funds. It was divided into three strata according to whether the investment company was classified as a common stock fund, a balanced fund or a specialty fund. The common stock stratum contained 165 companies, the balanced stratum 45 companies and the specialty stratum 26 companies. Their proportions of the universe were therefore .70, .19 and .11 respectively.

Stratification was accomplished according to basic policy on the premise that a fund's basic portfolio composition might well influence

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[4]Morris J. Slonim, Sampling in a Nutshell (New York: Simon and Schuster, 1960), p. 52.

[5]Earl K. Bowen, Statistics With Applications in Management and Economics (Homewood, Illinois: Richard D. Irwin, Inc., 1960), p. 72.

its management fee and consequently its total expenses. The decision to sample on a proportional basis was predicated on the requirement for proper representation of the variables from each stratum.

It was decided that thirty companies would constitute the sample (thirteen percent of the universe). Twenty-one funds were selected from the common stock strata, six from the balanced and three from the specialty, representing the same relationship to the total sample as their respective strata did to the universe. It was felt that this size sample would provide a representation of sufficient accuracy to enable meaningful interpretation of the results. It was also considered, however, that it could not be made much smaller because of the variability in size of the funds, as determined by net assets. The largest fund in the sample was Television and Electronics Fund, with net assets of $396.6 million. The smallest was Florida Growth Fund, Inc., with net assets of $5.4 million.

A table of random numbers was used to insure that the sample selected was in fact random.[6] In those instances where current information concerning a company which had been initially selected in the sample was unavailable, another selection was made from the universe using the same random number table.

III. COMPILATION OF PERTINENT DATA

After the sample had been taken, the prospectuses and annual reports for all companies in the sample, for fiscal year 1964, were secured. Data regarding net assets, management compensation, other operating

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[6] CRC Standard Mathematical Tables, 13th ed. (Cleveland, Ohio: The Chemical Rubber Company, 1964), p. 245.

expenses, and investment income were excerpted for each company. Computations were made to determine: (1) management compensation, as a percentage of net assets, (2) other operating expense, as a percentage of net assets, (3) management compensation, as a percentage of investment income, and (4) other operating expense, as a percentage of investment income. The results are presented in Table IX.

IV. THE RELATIONSHIP BETWEEN MUTUAL FUND SIZE AND MANAGEMENT COMPENSATION

To determine and illustrate what, if any, relationship existed between the variables, mutual fund size (as measured by net assets) and management compensation, a scatter diagram, utilizing appropriate data from Table IX, was constructed. This diagram is presented as Figure 1. Contrary to what was expected, there appears to be very slight if any correlation.

It can be seen from Figure 1 that the majority of the funds sampled pay annually between .40 and .55 percent of their net assets as management compensation. The four funds which paid the least for management had net assets of $17.2 million (Whitehall Fund), $103.7 million (Bullock Fund), $140.6 million (Century Shares Trust) and $81.5 million (Investment Trust of Boston) respectively. The two which paid the most had net assets of $12.6 million (Value Line Fund) and $23.5 million (Electronics Investment Corporation) respectively. While those companies paying the most tend to support the expectation that there is an inverse relationship between management compensation and fund size, those paying the least tend to refute it. The remaining twenty-four funds fail to establish any clear-cut relationship between the two variables.

TABLE IX

RELATIONSHIP OF MUTUAL FUND SIZE AND INVESTMENT INCOME TO MANAGEMENT COMPENSATION AND OTHER OPERATING EXPENSE, FISCAL 1964

	Name of Mutual Fund (1)	Net Aesete (in millions) (2)	Managsmsnt Compsnsation[a] (in thousande) (3)	Managemsnt Compensation ae a % of Net Aeeets (4)	Other Opsrating Expsnses (in thousands) (5)	Other Operating Expenes as a % of Nst Asests (6)	Investmsnt Income (in thousands) (7)	Man. Comp. ae a % of Inv. Incoms (8)	Othsr Oper. Exp. as a % Of Inv. Incoms (9)
	Common Stook								
1.	Bullook Fund	$103.7	$ 255.2	0.24%	$151.7	0.15%	$ 3,001.8	9%	5%
2.	Ths Chase Fund of Boston	25.4	138.1	0.54	52.3	0.21	485.9	28	11
3.	Chsmioal Fund	329.4	1,052.5	0.32	453.6	0.14	6,627.7	16	7
4.	Colonial Growth & Energy Shares	45.4	235.1	0.52	92.0	0.20	1,043.4	23	9
5.	Commonwealth Stock Fund	24.2	113.8	0.47	37.9	0.16	658.4	17	6
6.	Dividend Shares	374.2	1,145.2	0.31	583.8	0.16	10,906.8	15	5
7.	Elsctronics Invsstmsnt Corp.	23.5	138.4	0.59	138.4	0.59	713.5	19	19
8.	Energy Fund	33.4	172.0	0.51	133.0	0.40	803.4	21	17
9.	Fidslity Capital Fund	221.3	1,017.9	0.46	297.1	0.13	4,124.8	25	7
10.	One William Strest Fund	236.6	980.0	0.41	484.7	0.20	6,151.6	16	8
11.	T. Rows Prioe Growth Stock Fund	128.9	526.9	0.41	188.1	0.15	2,734.8	19	7
12.	Telsvieion-Elsctronics Fund	396.6	1,769.3	0.45	778.9	0.20	11,101.8	16	7
13.	Tsxas Fund	71.0	337.5	0.48	85.6	0.12	1,623.3	21	5
14.	Valus line Fund	12.6	76.2	0.60	37.1	0.29	385.6	19	10
15.	Windeor Fund	75.8	366.7	0.48	206.9	0.27	1,550.4	24	13
16.	Winfield Growth Industriss Fund	13.9	64.6	0.46	49.4	0.35	191.1	34	26
17.	Pionssr Fund	66.1	350.8	0.53	134.1	0.20	2,292.2	15	6
18.	Eaton & Howard Stock Fund	227.2	1,115.1	0.49	158.6	0.07	5,914.3	19	3
19.	Invsstmsnt Trust of Boston	81.5	237.4	0.29	207.6	0.25	2,381.1	10	9
20.	Florida Growth Fund	5.4	26.1	0.48	25.7	0.48	149.8	17	17
21.	Foursquars Fund, Inc.	5.8	24.9	0.43	16.6	0.29	167.8	15	10
	Balancsd								
22.	Axe-Houghton Fund B, Inc.	229.9	943.2	0.41	594.8	0.26	8,256.4	11	7
23.	Boston Fund	361.6	1,619.5	0.45	262.4	0.07	12,176.5	13	2
24.	Commonwsalth Inveetment Co.	179.0	863.9	0.48	158.7	0.09	6,407.6	13	2
25.	Divsrsified Invsstment Fund	138.2	625.4	0.45	242.0	0.17	5,492.6	11	4
26.	Eaton & Howard Balancsd Fund	232.7	1,151.2	0.49	130.8	0.06	7,919.6	14	2
27.	Whitehall Fund, Inc.	17.2	19.8	0.11	27.0	0.15	649.0	3	4
	Specialty								
28.	Atomio, Physics & Science Fund	41.5	214.5	0.51	140.3	0.34	1,334.7	16	11
29.	Axe Scisnce Corp.	21.3	106.7	0.50	104.0	0.49	626.2	17	17
30.	Century Sharss Trust	140.6	365.1	0.26	140.4	0.10	1,946.9	19	7

[a]Managsment compensation includes ths managsment fse paid to the advissr plus directors' salarise when paid by ths fund.

Sources: Annual Rsports fer various companies

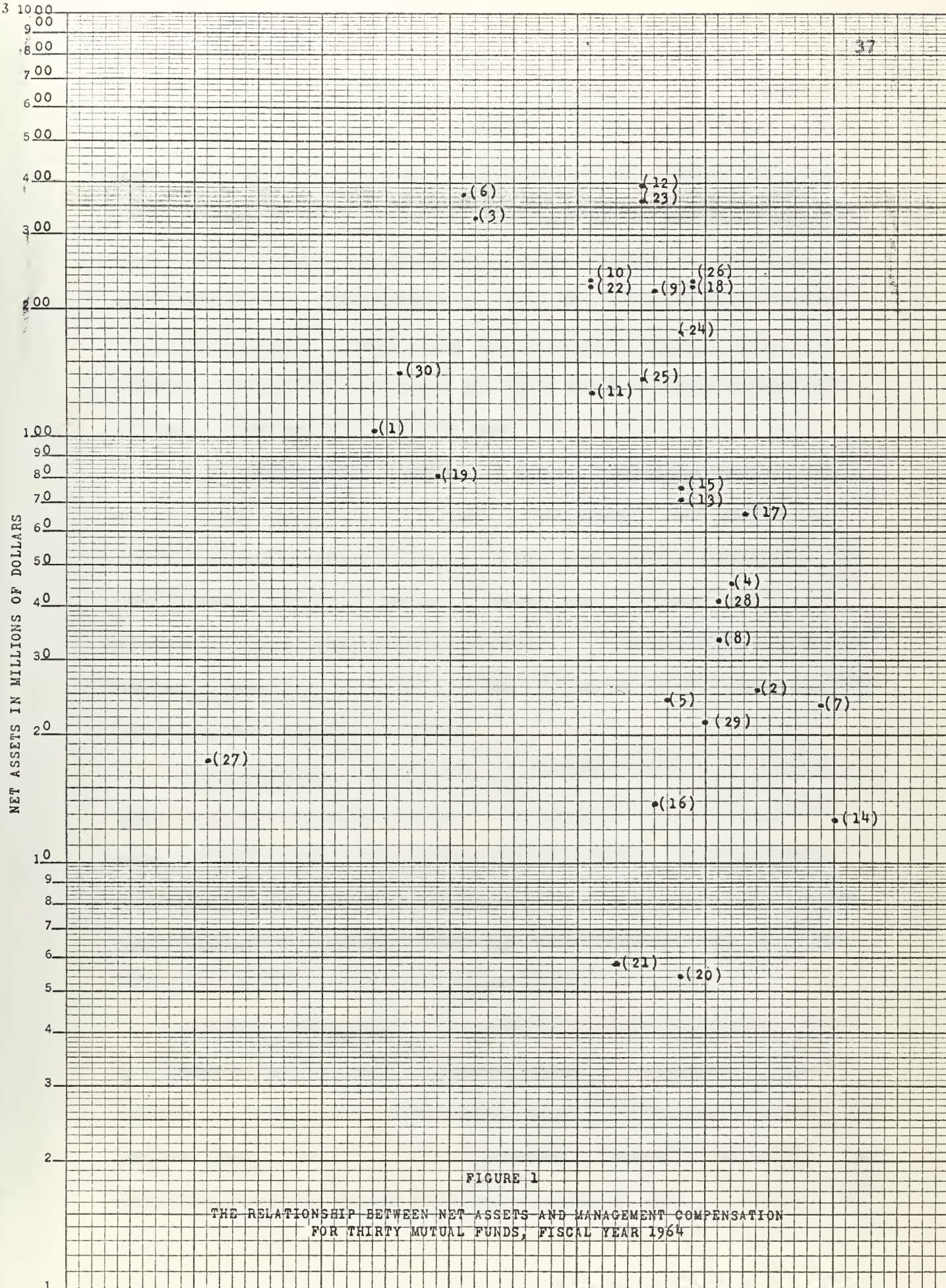

FIGURE 1

THE RELATIONSHIP BETWEEN NET ASSETS AND MANAGEMENT COMPENSATION FOR THIRTY MUTUAL FUNDS, FISCAL YEAR 1964

Based on the evidence provided by this sample, the conclusion is that there is no consistent relationship throughout the industry between mutual fund size and management compensation. The reasons for a fund paying management compensation which is high or low appear to depend upon factors peculiar to the individual fund, which are not subject to generalization. To demonstrate this, the six companies which were previously mentioned as constituting the extremes in Figure 1 have been analyzed to determine the causes for their being in their respective positions. The results are as follows:

1. Whitehall Fund. Whitehall's rate of management compensation was by far the lowest of any company in the sample, even though they were one of the smallest in size. It will be recalled from Chapter II that Whitehall is one of the Broad Street Group of funds, which enjoy the benefit of investment advisory service, at cost, through the Union Service Corporation. This fact is the obvious reason for their extremely low management compensation rate.

2. Bullock Fund. Bullock Fund is provided services by Calvin Bullock, Ltd., its investment adviser, at a rate of only 0.25 percent per annum. This is about one-half the industry average. Calvin Bullock, Ltd. manages several funds and have therefore been able to achieve certain economies of operation, which they have chosen to pass on to their clients in the form of lower management fees.

3. Century Shares Trust. The affairs of this company are managed by a board of six trustees, a somewhat uncommon arrangement in the industry. As a trust, they have avoided some of the expenses inherent in the more common investment adviser/investment company relationship. The rate of remuneration to the trustees is therefore only 0.25 percent per

annum; like Bullock, considerably below the industry norm.

4. Investment Trust of Boston. This company, like Century, is also managed through a board of trustees. The trustees are paid an annual rate of 0.50 percent, twice that of Century, but under the terms of the declaration of trust, this fee is reduced by all indebtedness of the Trust. Additionally, during fiscal year 1964, by special vote of the trustees, the compensation to the trustees and members of the advisory board was limited to 0.29 percent. Otherwise, the rate would have been in excess of 0.40 percent.

5. Value Line Fund. This fund had unusually high management expense because of the compensation rate it agreed upon in its management contract. Its contract called for a rate of 0.75 percent per annum on the first $4 million of the average of the daily closing net asset values and 0.50 percent of those in excess of $4 million, with certain provisions for slight downward adjustments. Due to its small size, the 0.75 percent rate applied to approximately one-third of its holdings, and the best it could do on the remaining two-thirds was about the industry average.

6. Electronics Investment Corporation. This company's advisory contract called for a graduated fee rate beginning at 0.50 percent, economies being realized at $90 million of net assets and again at $150 million of net assets. Due to its small size, it got neither of these economies, and when the fees paid to directors and advisory board members were added to those for the advisory service, the management compensation rate was elevated above twenty-eight of the thirty funds sampled.

The lack of correlation between these variables in the random sample of thirty companies prompted a further investigation in which six of the

largest mutual funds, each having over $800 million in net assets, were studied. Table X contains the data recorded. These data indicate that Massachusetts Investor's Trust had management expenses of only 0.07 percent--by far the lowest of any company studied. Affiliated Fund and Wellington Fund had management expenses of 0.22 percent and 0.24 percent respectively; well below the industry average (see Figure 1). The remaining three companies (Dreyfus Fund, Fundamental Investors and United Accumulative) had rates which were just slightly under the average rate.

All of these companies had graduated fee scales except Dreyfus. Massachusetts Investor's Trust had extremely low rates within each graduation, by virtue of its trust character. Affiliated and Wellington also had low rates within each graduation, but not comparable to Massachusetts Investor's Trust. The graduated fee scales of Fundamental Investors and United Accumulative were not as attractive, however, in that their rates within the lower graduations were about equal to the industry average, and those in higher graduations were only slightly reduced. Dreyfus charged a fee based on a flat percentage of the average market value of its net assets, which was near the low end of the industry average.

The study of these six giant companies again demonstrates that management compensation is not significantly related to company size. This is evident in the great disparity of rates between these companies. It does indicate, however, that graduated fee scales become highly advantageous to the shareholder where net assets are extremely large. This is particularly noticeable when the management contract is written in such a manner that the economies of large-scale operation are passed on to him.

TABLE X

NET ASSETS, MANAGEMENT COMPENSATION AND OTHER OPERATING EXPENSES
FOR SIX LARGE MUTUAL FUNDS, FISCAL 1964

Name of Fund	Net Assets (millions of $)	Management Compensation (thousands of $)	Man. Comp. as a % of Net Assets	Other Operating Expense (thousands of $)	Other Oper. Exp. as a % of Net Assets
Massachusetts Investors Trust	$2,101.1	$1,540.5	0.07%	$2,186.7	0.10%
Dreyfus Fund, Inc.	800.2	3,368.0	0.42	834.1	0.10
Wellington Fund	1,878.6	4,462.5	0.24	1,741.0	0.09
Fundamental Investors	907.6	3,792.5	0.42	899.6	0.10
Affiliated Fund	1,117.8	2,503.9	0.22	1,075.1	0.10
United Accumulative Fund	980.4	3,681.0	0.38	551.1	0.06

Source: Annual reports for various companies

V. THE RELATIONSHIP BETWEEN MUTUAL FUND SIZE AND OTHER OPERATING EXPENSES

To determine and illustrate what, if any, relationship existed between the variables mutual fund size and other operating expenses (as defined at the beginning of this chapter), a scatter diagram, utilizing appropriate data from Table IX was constructed. It is presented as Figure 2.

While there was little correlation existing between fund size and management compensation, there was, as expected, a definite correlation between size and other operating expenses. The correlation was negative. The tendency was for large values on the X axis (other operating expenses) to be paired with small values on the Y axis (net assets) and conversely, for large values on the Y axis to be paired with small values on the X axis. This, of course, shows that as assets increase, it costs the shareholder less, per dollar invested, in other operating expenses. This conclusion is dramatically supported by the study of the six giant funds. Table X shows that other operating expenses, as a percentage of net assets, was extremely low for all these companies; varying from a low of 0.06 percent to a high of only 0.10 percent.

Thus we may conclude that the general tendency in the mutual fund industry is for the larger companies to be most attractive to the prospective shareholder, from the standpoint of other operating expenses he will have to pay per dollar of his investment.

Considerable attention has been centered on management compensation and other operating expenses as percentages of net assets. To the casual observer, the significance of these figures may not be grasped, in that, in our sample, none of them amounted to more than 0.60 percent. To more

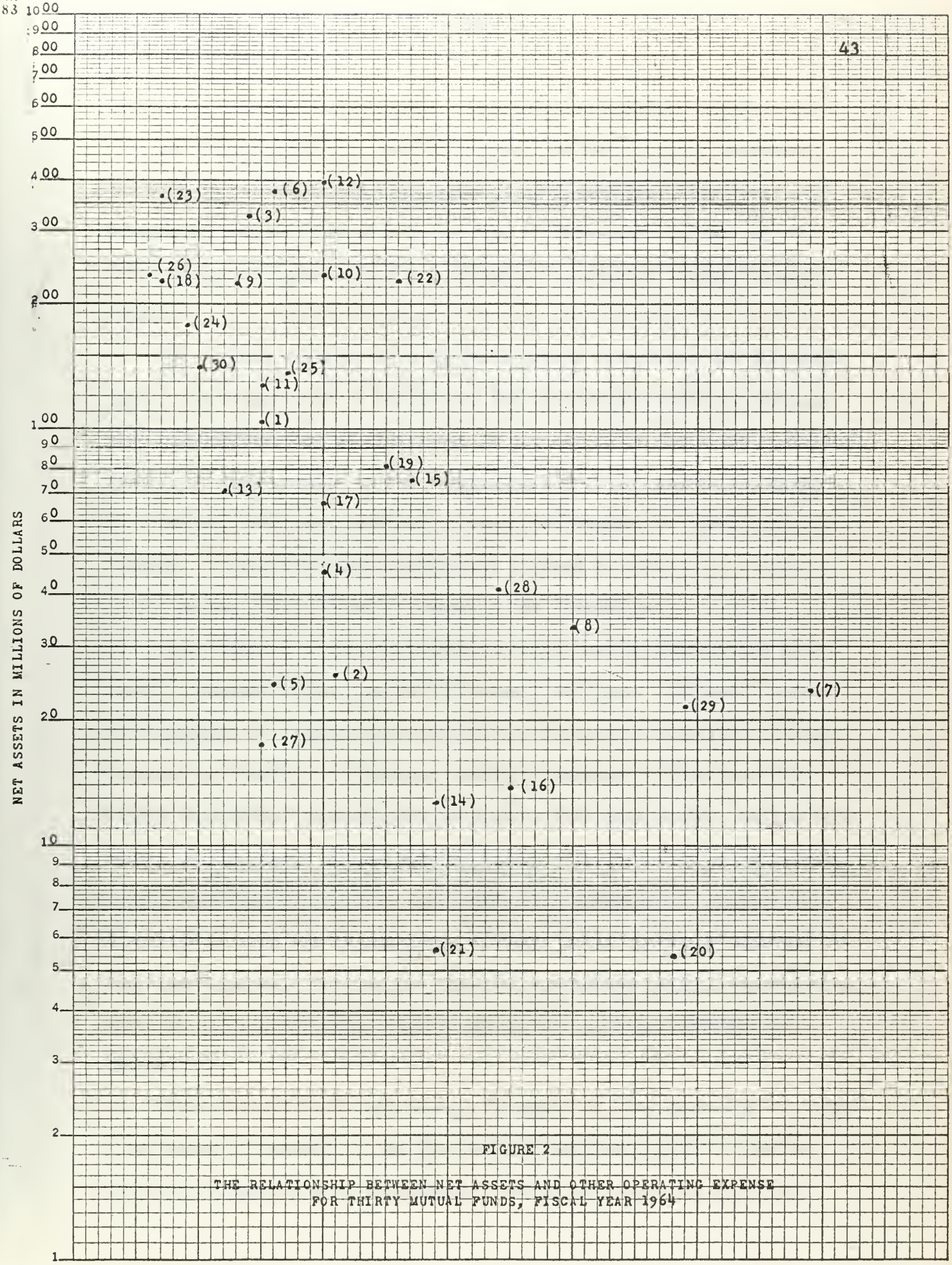

FIGURE 2

THE RELATIONSHIP BETWEEN NET ASSETS AND OTHER OPERATING EXPENSE FOR THIRTY MUTUAL FUNDS, FISCAL YEAR 1964

Semi-Logarithmic
Cycles x 10 to the inch

forcefully illustrate the impact that these two expense categories can have upon the profits realized by the shareholder from his investment, the data in columns 8 and 9 of Table IX were computed. They are: (1) management compensation as a percentage of investment income and (2) other operating expense as a percentage of investment income, respectively.

The extreme examples were Winfield Growth Industries and Whitehall Fund. The former paid 34 percent of its investment income for management compensation and an additional 26 percent of it for other operating expenses. This amounts to the staggering sum of 60 percent of investment income, which was required to cover the expense of operating the company. On the other hand, Whitehall managed to operate at a cost of only 7 percent of investment income to the shareholder.

These figures can be misleading in that the two funds cited have widely divergent objectives and investment policies. Whitehall puts primary emphasis on income and stability and seeks this objective through a balanced portfolio. In contrast, Winfield stresses growth through a widely diversified common stock portfolio. For this reason, Whitehall's return on investment in the form of income will naturally be relatively much larger than Winfield's. And there will therefore be considerable disparity between the relationship of their total operating expenses to investment income. Further, we have not considered capital appreciation, which should significantly improve Winfield's position relative to Whitehall's.

These factors notwithstanding, the point is that ownership of mutual fund shares is expensive, and the reader, when dealing with expenses measured in fractions of percentages, should not overlook this fact.

CHAPTER IV

THE RELATIONSHIP OF MUTUAL FUND PERFORMANCE TO MANAGEMENT COMPENSATION

The main investment service that mutual funds purport to provide to the fund investor is security analysis.[1] They provide this service, in the vast majority of cases, by purchasing it from a management company. Considerable effort was expended in Chapter III in attempting to establish that, when the funds purchase this service from the management company, in behalf of the investor, the price they pay is not inconsequential. In view of this, it is certainly reasonable for the investor to ask what he is getting for this fee.

Chapter III also illustrated the great variance in management compensation rates currently being paid by funds throughout the industry. One assumes, in most situations, that a difference in service fee means a difference in service. And the expectation is that fees vary directly and, to a considerable degree, in proportion to that service. The shareholder certainly has a right to expect that if he is going to have to pay a higher fee, he should get better service. But how do we measure whether the service provided by one management company is better than that provided by another? It is generally accepted that the best measure of this factor is the long-run performance of the fund which is receiving the service, in that the better the fund performs, the higher the remuneration to the stockholder.[2]

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[1]Marshall D. Ketchum, "Discussion: Mutual Fund Management Fee Rates," The Journal of Finance, XVIII (May, 1963), 394.

[2]"Forbes Mutual Fund Survey: 1964," Forbes, LXXXXIV (August 15, 1964), 32.

This chapter will investigate and determine the relationship, if any, which exists between the performance of a fund and the compensation it pays to secure that performance. In the process, other related matters will be touched upon. As in Chapter III, this will be accomplished through statistical sampling and correlation. The variables to be correlated are management compensation and performance.

I. DESIGNING THE SAMPLE

In devising a sampling plan, all companies were classified on the basis of investment objective. Perhaps the most commonly recognized categorization of investment companies, on the basis of objective, is: (1) growth of capital and/or income, (2) immediate income, (3) price stability or some combination of these three.[3] Investment companies are further classified on the basis of the investment policies that they follow in the interest of achieving their declared objective(s). They are:[4]

1. Diversified Common Stock Funds. Companies which invest all, or almost all, the money under their control in common stocks or in other securities with common stock characteristics.

2. Specialized Common Stock Funds. Companies which place special emphasis in their accounts on a particular industry or group of related industries, such as various forms of energy, chemicals, electronics or insurance.

3. Balanced Funds. Companies that at all times invest some portion of their assets in bonds or preferred stocks, or both, in addition

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[3]Arthur Wiesenberger, Investment Companies, Mutual Funds and Other Types (New York: Arthur Wiesenberger and Company, 1964), p. 16.

[4]Ibid., pp. 59-61.

to a portion that is invested in common stocks.

4. Flexibly Diversified Funds. Companies which may invest entirely in common stocks or use any desired proportion of bonds and preferred stocks.

5. Bond and Preferred Stock Funds. Companies which confine their investments to bonds, preferred stocks, or a combination of the two.

For purposes of this study, it was decided to concentrate on two groups of funds: (1) those with growth objectives (the diversified common stock companies) and (2) those with multiple objectives of growth, income and stability (the balanced companies). By doing this, the analysis was simplified somewhat, while still including a considerable proportion of all funds. The latter point is substantiated by the data presented in Table XI. They reflect that in fiscal year 1963, diversified common stock and balanced funds, from the standpoint of net assets, constituted 84 percent of all funds in the industry.

It will be recalled from Chapter III that the grouping that has just been described actually constitutes the definition of strata. In this case, the universe from which the sample was to be taken consisted of a stratum of diversified common stock companies and a stratum of balanced companies. In contrast to the stratified proportional random sampling used previously, it was decided that stratified equal-size random sampling would be used in this instance. When using this sampling procedure, independent samples are made from each stratum of the universe and then combined to make one sample, just as in proportional sampling. It differs from proportional sampling in that the independent samples are of equal size, no attempt being made to relate the total

sample proportions to those of the universe.[5]

The decision to sample on an equal-size basis was predicated on the conclusion that performance analysis would be better served by this procedure. It was further decided that twenty companies would constitute the sample; ten from each of the strata upon which we were concentrating. The same table of random numbers which was used in Chapter III was again used for making the selection.

TABLE XI

MUTUAL FUND ASSETS BY TYPES
(000 Omitted)

Type of Fund	Total Net Assets 12/31/63	% of Total
Diversified Common Stock	$15,572,317	60%
Industry Specialized	2,347,008	9
Balanced	6,277,164	24
Income	906,773	3
Tax-Free Exchange	565,000	2
Canadian and International	295,241	1
Bond and Preferred Stock	196,907	1

Source: Arthur Wiesenberger and Company

II. MEASURING MUTUAL FUND PERFORMANCE

The determination of a method for measuring mutual fund performance proved to be a somewhat difficult task. It was concluded that there is no one absolute measure of this variable. This conclusion corresponds to the findings of the Wharton Report:

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[5]Morris J. Slonim, Sampling in a Nutshell (New York: Simon and Schuster, 1960), p. 50.

> It is clear from the variety of investment objectives announced by the funds that a single measure of performance for all funds and for all investors is inadequate. There is no strong reason, for example, why a balanced fund should record, or be expected to record, changes in asset values similar to those of a common stock fund. Similarly it is to be expected that funds which announce an "income" objective will yield different rates of return and will experience different changes in asset values from funds with a "growth" objective.[6]

The best comparison was required, however, and it necessitated consideration of several factors:

1. Over what length period should the survey extend? And when should the period, once its length was established, begin, and when should it end? The problem in selecting the period was to avoid, as much as possible, bias in favor of either of the two groups of funds being considered. The presumption is that should a period be selected in which stocks were predominately rising, the managers of diversified common stock funds would be favored, due to their exclusive investment in growth securities. On the other hand, should the period be one of predominately falling stock prices, the balanced fund managers would have the advantage, through their substantial commitment to bonds and preferred stocks. The reason for both circumstances, of course, is because growth securities are usually volatile, while bonds and preferred stocks, due to their lack of growth potential, are provided with features which offer considerable protection to the investor in a declining market.[7]

2. It has been previously mentioned in this paper that when an investment is made in mutual fund stock (except for a few "no-load" funds),

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[6]U. S., House of Representatives, A Study of Mutual Funds, 87th Congress, 2d Session, Committee on Interstate and Foreign Commerce, H.R. 2274 (1962), p. 17.

[7]Sidney M. Robbins, Managing Securities (New York: Houghton Mifflin Company, 1954), pp. 145, 243.

a sales or load charge, that normally varies between 7 and 9 percent of the original investment, is assessed. The value of the stock actually purchased is, of course, reduced by this amount. The question to be resolved was whether to consider the load charge in computing management results.

3. How should the payments to stockholders by the fund be handled? There are two types of payments that may be made to investors: (1) dividends paid out of current income and (2) distributions paid out of realized capital gains.[8] A performance measure is significantly affected by whether these payments are treated as reinvested. A fund reinvesting them should show better results than one whose investors received them in cash.

A ten year period, from 1 January 1954 through 31 December 1963, was selected for the study. Ten years was considered sufficiently long to dampen the effects that any short term circumstances might have had on management results. Of more importance, however, was that during the particular period selected, there were four intervals in which the market showed steady rises and three in which there were steady declines. The intervals referred to are:[9]

1. Rising
    a. 1 January 1954-30 June 1956
    b. 25 October 1957-31 December 1959
    c. 30 September 1960-31 December 1961

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[8]Lester V. Plum and Joseph H. Humphrey, Jr., Investment Analysis and Management (Homewood, Illinois: Richard D. Irwin, Inc., 1954), p. 592.

[9]"Forbes Mutual Fund Survey: 1964," loc. cit.

d. 30 June 1962-31 December 1963

2. Declining

a. 30 June 1957-25 October 1957

b. 31 December 1959-30 September 1960

c. 1 January 1962-30 June 1962

Even though the aggregate length of the rising periods substantially exceeded that of the declining periods, there was a decided tendency for the two to balance the relative advantages of the diversified common stock funds over the balanced funds, and vice-versa. The fact cannot be avoided, however, that the Dow-Jones Industrial Average stood at 280.90 at the beginning of the period and had risen to 762.95 at the end.[10] For this reason, the conclusion is unavoidable that the diversified common stock funds, on the whole, had the advantage.

In spite of this, the decision in favor of the period chosen is not undermined, because it was almost as well balanced as any other period in recent history, and it had the advantage that it represented the most current data available.

It was decided that the load charge would be ignored. The reason for this was that the intention of the analysis was to measure management skill; not investment results. Had the interest lay in investment results, the load charge would have been pertinent. The higher the percentage of an investment which is assessed as a load charge, the less of that investment which is used for the actual purchase of stock. For that reason, the load charge has a significant inverse effect upon investment

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[10] Wall Street Journal, Pacific Coast Edition, January 3, 1954, p. 6 and January 3, 1964, p. 9.

results; the higher it is, the more it acts to reduce the investment result. Measurement of management skill, on the other hand, is concerned only with the amount of money which actually goes to purchase stock; since it is a function of the appreciation or depreciation of this sum.

It was decided that dividends from investment income would be regarded as received by the investor in cash; since this is the common practice. On the other hand, about seventy percent of recent capital gains distributions have been paid in shares, which, of course, represents a reinvestment of the distribution.[11] For this reason, it was decided to regard them as reinvested.

In recapitulation, the decisions regarding the determination of mutual fund performance were:

1. To measure performance over a ten year period, beginning on 1 January 1954 and ending on 31 December 1963.

2. To ignore the load charge.

3. To regard investment dividends as having been received by the investor in cash.

4. To regard capital gains distributions as having been reinvested in additional shares.

As a result of these decisions, the data, after they had been collected, were suitable for measuring performance through the use of the method favored by Wiesenberger. He determines performance of an individual investment company through the following computation:[12]

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[11] Wiesenberger, op. cit., p. 40.

[12] Ibid., p. 81.

the fund's capital gain (loss) performance and that of the broadly representative Standard and Poor's 500 Stock Average.[14] The important thing to note is that performance results of a company vary, depending upon the measure used, because the different measures are arrived at by different procedures.

Before passing on to the section of this paper that deals with the correlation of the variables, performance and management compensation, it should be pointed out that there are several impediments to excellent performance which are inherent in the operation of mutual funds.

The first of these is the constant sales effort that is made by most companies. This effort brings in a steady flow of new capital which, for the most part, must be invested regardless of how unattractive the market may be.[15] This is especially true when the market is rising rapidly, in that this is just when investor interest is the highest and the sales effort therefore the more productive. And, generally speaking, it is during these periods when security prices are the least attractive. This is partially offset, over the long pull, by dollar cost averaging (whereby the high costs in the rising market are reduced by averaging with the low costs of the declining market), but it still acts as a hindrance to any dramatic demonstration of performance.

Paradoxically, the large size of many companies, which they all strive for, also acts as a brake in two ways: (1) it may lead to overdiversification and (2) the company's flexibility to move in and out of

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[14]"Forbes Mutual Fund Survey: 1964," loc. cit.

[15]Leo Barnes, Your Buying Guide to Mutual Funds and Investment Companies (Larchmont, New York: American Research Council, 1958), p. 7.

Asset value on 31 December 1963 of $10,000 investment made on 1 January 1954, including the value of shares accepted as capital gains distributions.....	$25,714
Plus total dividends received from investment income during the period 1 January 1954-31 December 1963.....	6,162
Total adjusted asset value 31 December 1963.....	31,876
Asset value on 1 January 1954.....	9,150

Calculation

Formula	Actual Figures	Performance Relative
$\frac{\text{1963 Adjusted Asset Value}}{\text{1 January 1954 Asset Value}}$	$= \frac{31,876}{9,150} =$	348%

Performance = 248% Gain

It should be recognized that the selection of the Wiesenberger method was an arbitrary choice and that it was actually made prior to the five basic decisions regarding performance which have just been discussed. Otherwise, the data, after collection and compilation, might well have been in a form that was not compatible with this method; or with any method. Performance could just as well have been measured by one of several other acceptable methods currently in use in financial circles. One example of these other measures is the one used by Hugh Johnson and Company. It is identical to the one used by Wiesenberger except that it treats capital distributions as received by the investor in cash.[13] Another is the Forbes performance rating. It really consists of two ratings for the investment company, one in rising markets and one in declining markets. Both ratings are actually ratios between

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[13] Johnson's Investment Company Charts (Buffalo: Hugh Johnson & Company, Inc., 1964), p. 5.

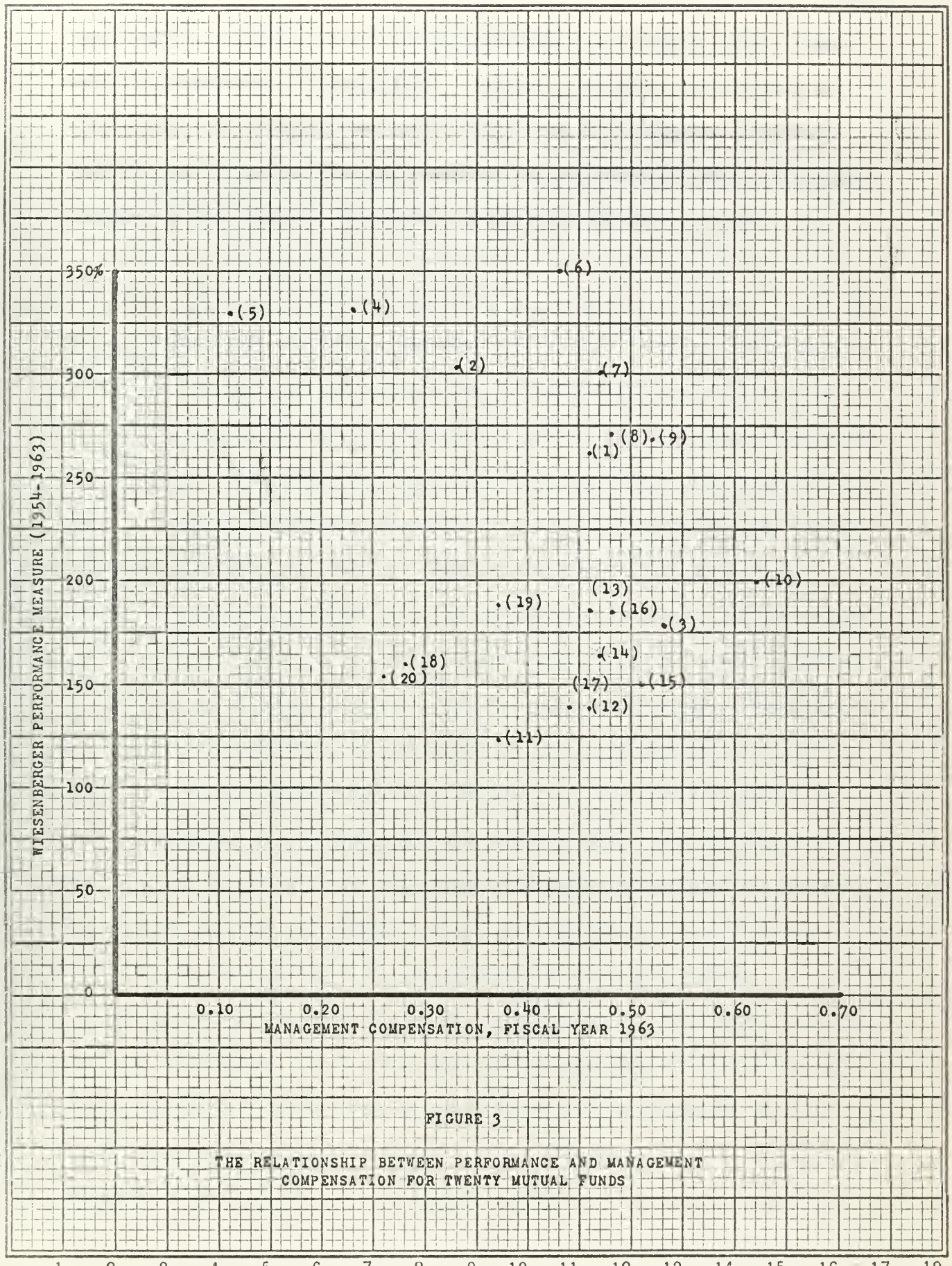

FIGURE 3

THE RELATIONSHIP BETWEEN PERFORMANCE AND MANAGEMENT COMPENSATION FOR TWENTY MUTUAL FUNDS

compensation currently being paid throughout the industry is not traceable to performance differentials. Generally speaking, it is just as likely that the investor who pays a high rate for management compensation will get less service (as measured by performance) than his neighbor, who pays a low rate, as it is that he will get as much or more.

CHAPTER V

SUMMARY AND CONCLUSIONS

This paper has been concerned with the relationship between open-end investment companies and their investment advisers.

Chapter I was devoted to a presentation of material related to mutual funds that would provide a background for the study which was undertaken in subsequent chapters. The history of the industry, from its inception to the present, was traced, using appropriate statistical data. The underlying reasons for the phenomenal growth that has been experienced were examined. The advantages and disadvantages, which accrue to the investor in mutual funds, were discussed at length. During this discussion, reasonable latitude was taken in referring to related matters in an attempt to establish a broad base for the study. Chapter I was terminated with a brief statement of the purpose and scope of the research effort.

Chapter II sought to further broaden the reader's understanding of the mutual fund industry. It attempted to focus his attention on the narrow area of the field with which the paper is concerned by making a detailed analysis of the management of mutual funds. This analysis was undertaken in two steps: (1) the legal relationship between the investment company and its investment adviser and (2) the actual procedures which are commonly employed in controlling the fund portfolio.

The investigation into the legal relationship was initially directed toward an examination of the more important provisions of the Investment Company Act of 1940 which bear on the interface considerations of the investment company and its adviser. It was then diverted into a presentation of some of the more significant findings of the Wharton Report

which relate thereto.

The procedures for controlling the fund portfolio were presented through a discussion of the organizational structure of and management methods employed by two currently prominent and successful mutual fund management companies. This completed the backgrounding phase of the study.

The actual research phase was concerned with three primary areas of interest relating to investment companies:

1. The relationship of their size to the management compensation paid by them.

2. The relationship of their size to their other operating expenses.

3. The relationship of their performance to the management compensation paid by them.

Chapter III investigated the first two of these areas. It explained the necessity for separation of all operating expenses into two categories, management compensation and other operating expenses, and provided a working definition of the two terms. It adopted the net asset valuation of a company as the measure of its size.

The matter of mutual fund size was examined from the standpoint of the legal restrictions of the Investment Company Act of 1940, which were imposed for the protection of the shareholder.

It was not practicable to gather data to enable determination of the variables in which we were interested for all investment companies. Statistical sampling was selected as the alternative. Use of this device required the design of a sampling procedure. The procedure selected was stratified proportional random sampling. An explanation of this method and the reasons for its selection were offered.

A sample of thirty companies was drawn from a universe consisting of 236. The prospectuses and annual reports for all companies in the sample, for fiscal year 1964, were obtained. The required data were excerpted, and the aforementioned variables were computed.

The variables, size and management compensation, were correlated by means of a scatter diagram. Contrary to what was expected, there was essentially no correlation of either a positive or negative nature. The six companies in the sample which constituted the extremes were analyzed in an attempt to gain additional insight into the reasons for the surprising results. The analysis strengthened the results of the correlation.

For the same reason, an additional study of the relationship between size and management compensation was conducted on six of the largest companies in the industry. It was felt that this would provide the most favorable circumstances for the demonstration of any trend or pattern which might exist. None materialized.

The last section of Chapter III was devoted to a correlation of the variables, size and other operating expense, for the same thirty companies. It was also done by means of a scatter diagram. In contrast to the findings regarding size and management compensation, a definite relationship was established between size and other operating expense; it was an inverse relationship. There was a strong tendency for the larger companies to incur smaller other operating expense per dollar of net assets. Further analysis of the six giant companies, which were previously mentioned, clearly substantiated these findings.

In closing Chapter III, an attempt was made to emphasize to the reader that management compensation and other operating expense are of great significance to the shareholder, despite the small percentage of

net assets that they represent. This was done by showing these expenses as percentages of investment income for the 30 companies in the sample. The company with the highest total operating expense, as a percentage of investment income, and the one with the lowest were given special attention. There were other factors which required consideration to prevent these statistics from being misleading in certain respects. These were discussed.

Chapter IV was concerned with the relationship between performance and management compensation. It was first necessary to decide upon a procedure for selecting the sample of companies to be considered. The one chosen was stratified equal-size random sampling. An explanation of this method and the reasons for its selection were given.

A procedure for determination of management compensation was of no concern in that it had already been developed in the preceding chapter. Determination of performance, however, required consideration of and decisions regarding several factors. These factors were discussed in depth in an attempt to insure a thorough understanding of the difficulties involved in measuring performance and the basis for the use of the particular measure which was chosen. Also, the impediments to superior performance that the investment adviser encounters were discussed.

A sample of 20 companies was drawn from a universe confined to diversified common stock and balanced companies. The prospectuses and annual reports for all companies in the sample, for fiscal year 1963, were obtained. The required data were excerpted, and the management compensation for each company was computed. The performance measure for each, for the period previously decided upon, was ascertained by reference to special tables prepared by Arthur Wiesenberger and Company.

These variables were then correlated by means of a scatter diagram. It had appeared reasonable to expect that there was a definite direct relationship between the performance of a company and the compensation which it paid to its investment adviser. There was, however, no correlation of either a positive or negative nature. No pattern or trend could be seen.

The most significant findings of this research effort, as they relate to the mutual fund industry as a whole, are therefore threefold:

1. The compensation which is paid by an investment company to its investment adviser bears no relationship whatsoever to the size of the fund.

2. A pronounced inverse relationship does exist between mutual fund size and other operating expense.

3. The performance that an investment adviser is able to achieve for an investment company is completely independent of the compensation rate which it receives from the investment company in payment for that service.

These findings should be very disturbing to the mutual fund shareholder. They raise two highly pertinent questions to which he should be demanding answers:

1. Why is it that management fee rates that are established when investment companies are small remain stable as the companies' assets increase enormously, even though the cost of managing the companies does not go up proportionately?[1] This becomes a particularly pressing question

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[1]"Fund Wins Skirmish Over Management Fees," Business Week (May 13, 1961), 117.

in view of the relationship which was found between fund size and other operating expense. This finding clearly demonstrates that there are economies of scale in the mutual fund industry and that the investment companies are realizing the benefits of these economies in those instances where they pay for their actual operating expenses directly. It strongly suggests that the rates currently being charged a considerable proportion of the investment companies are excessive.

2. Why is it that an investment adviser is paid for superior management achievement (as measured by the performance of the investment company), year after year, regardless of whether he provides it?

Until recently, there seemed to be little general concern over these matters. However, in the last five years, things have changed. This is evidenced by the rash of stockholder suits charging excessive management fee rates which have been filed.[2] Almost all of these suits, so far, have been settled on the basis of the "sliding scale," whereby the rates for advice fall after assets rise above a specified amount.[3]

The Securities and Exchange Commission agrees with the shareholder in his views. Some of its staff officials feel that even the adoption of a sliding scale is not adequate to correct the imbalance now existing.[4] They undoubtedly have been strongly influenced in this matter by the findings of the Wharton Report, some of which have been presented in this study.[5]

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[2]"The Fight on Mutual Fund Fees," Business Week (December 16, 1961), 110.

[3]"Personal Investing," Fortune, LXX (December, 1964), 83.

[4]Ibid.

[5]"The Funds," Forbes, XC (October 15, 1962), 58.

While the tide is now definitely running against those investment advisers who are charging unconscionable management fee rates, a final solution of the problem is not yet in sight. Edward S. Herman, one of the authors of the Wharton Report, has reflected upon this matter at length, and it is his view that, currently, the most promising approach is the enactment of federal legislation to require each mutual fund to be internally managed; that is, outlaw external management companies.[6] He feels that the forms of control do not accurately describe the facts of power and that mutual funds are actually corporate shells, serving as controlled instrumentalities of investment advisers.[7] He considers this inimical to the interests of the mutual fund shareholder and the primary reason for the current inequity in management fee rates.

There would be, of course, violent opposition by the management companies and their shareholders to any such action. There is no reason to believe, at this time, that the Securities and Exchange Commission is contemplating a recommendation for this proposal. Its Division of Corporate Regulation is, however, currently conducting an examination of mutual funds, in an attempt to formulate some judgements on questions such as these. Their findings should be forthcoming in the near future.

Regardless of the outcome, it will be interesting to follow what promises to be a hotly contested battle over mutual fund management fee rates and their relation to fund size and performance. Perhaps this research effort may, in a small way, contribute something to its resolution. It would be pleasant to think that it might.

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[6]Edward S. Herman, "Mutual Fund Management Fee Rates," The Journal of Finance, XVIII (May, 1963), 375.

[7]Ibid.

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